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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR      | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|---|-------------|---------------------------|----------------------|------------------|
| 09/771,374  | 01/26/2001  | Kalpesh Dhanvantrai Mehta | 10559-177001 / P8237 | 6479             |
| 20985   | 7590        | 04/21/2004                | EXAMINER             |                  |
| FISH & RICHARDSON, PC<br>12390 EL CAMINO REAL<br>SAN DIEGO, CA 92130-2081 |             |                           | BROSS, EDWARD J      |                  |
|   |             |                           | ART UNIT             | PAPER NUMBER     |
|   |             |                           | 2126                 |                  |

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/771,374

Applicant(s)

MEHTA, KALPESH  
DHANVANTRAI

Examiner

Edward Bross

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-17 are pending in this application.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack proper antecedent basis:

- i. the shared computer – claims 1, 6, and 11
- ii. the shared memory resource – claim 17

- b. The claim language in the following claims is indefinite:

- iii. As per claims 1 (lines 28-29), 6 (line 29), 11 (line 28), it is uncertain whether “the shared computer” refers to “the shared computer resource”.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Hegde (6,067,557).

6. As to claims 1, 6, and 11, Hegde teaches the invention as claimed including a technique for controlling access to a shared computer resource which comprises:

assigning an access value and a relative priority value to each of the computer processes (col. 4, lines 59-65);

and thereafter for each access cycle permitting each computer process access to the shared computer resource in accordance with each process; access value and relative priority value such that for each access cycle (col. 4 line 65 – col. 5 line 6);

providing access to each computer processes having pending high priority requests is provided access to the shared computer resource until the access value of each such computer process is exhausted, and thereafter (col. 4, lines 7-8);

providing access to each computer process having pending low priority requests access to the shared computer resource until the access value of each such computer process is exhausted whereupon (col. 4, lines 7-8);

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any remaining pending requests for access present in any computer process are provided access to the shared computer resource as a low priority request until all pending requests for access to the shared computer resource are satisfied (col. 5, lines 9-11).

7. As to claims 2, 7, and 12, Hegde teaches the invention as claimed including restarting the access cycle after all pending requests for access to the shared computer are satisfied (col. 5, lines 10-11).

8. As to claims 3, 8, and 13, Hegde teaches the invention as claimed including at least two different priority values are present (col. 4, lines 59-60 "highest priority to lowest priority" implies at least two priority levels).

9. As to claims 4, 9, and 14, Hegde teaches the invention as claimed including at least one of the computer processes is an isochronous process (col. 7, lines 54-56).

10. As to claims 5, 10, 15 Hegde teaches the invention as claimed including at least one of the computer processes is an asynchronous process (col. 8, lines 15-16).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hegde (6,067,557).

13. As to claim 16, Hegde does not disclose that the controller is a memory controller. However, memory controllers are known in the art as a resource that needs to be shared among competing processes. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the system of Hegde to control access to a memory controller to allow it to be shared with "some amount of deterministic behavior" (col. 4, lines 44-45).

14. As to claim 17, Hegde does not disclose the shared memory resource is a shared memory bank. However, shared memory banks are known in the art as a resource that needs to be shared among competing processes. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the system of Hegde to control access to a shared memory bank to allow it to be shared with "some amount of deterministic behavior" (col. 4, lines 44-45).


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Bross whose telephone number is 305-8754. The examiner can normally be reached on Mon-Fri 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EB

  
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